

Adams City HS

The Importance of National Wildlife Refuges

By

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The Great Plains region provides some of the nation's most important natural habitats. They account for a large majority of the country's prairie potholes, waterfowl production areas and prairie grasslands. These habitats are not just important to the areas in which they exist, but they are also very important to habitats which exist hundreds, or even thousands of miles away. The Wildlife Refuges in the Great Plains region serve as a boundary to protect these delicate ecosystems which are so vital. The majority of these biomes have already been destroyed due to industry, agriculture and the large population increases in these areas since the colonization of America.

Prairie potholes are shallow depressions in the earth, most were created by glaciers that were once in the area. Many of the potholes hold water only in the spring after heavy rains. However all of the potholes provide a habitat for a large variety of plants and animals, and serve many other ecological functions. During the heavy spring rains when all of the soil becomes saturated and the runoff begins to flow, the potholes provide a place for much of the water to go. In the case that prairie potholes no longer existed the flood water would run across the land and into the already full rivers, streams, ponds and lakes. This would create additional erosion and would often cause destructive floods in some regions. Not only do the potholes help prevent erosion and flood but the potholes vegetation helps prevent the highly rich soil of the upland from over enriching the rivers and streams. Over enrichment causes a spike in the food chain which can lead to many problems such as disease.

Prairie potholes act as storage tanks for large quantities of water when it is plentiful and they release it slowly when the land begins to dry out. This allows for an increase in the plant and animal variety. In fact during the summer and fall potholes

become key resting and nesting locations for dozens of migratory waterfowl such as mallards, redheads, pintails, shovelers, wigeon, blue-winged teal, canvasbacks, scaup and many other species. Some of these migrating birds remain in potholes only to rest before migrating further north for the summer, others however make these potholes their homes for the summer. These species will spend the entire summer nesting, feeding, and contributing to the food chain. Arguably the most important functions of these prairie potholes is in the production of waterfowl. Essentially they act as large breeding pools for waterfowl. In addition to the hundreds of species of waterfowl inhabiting the potholes each year there are a wide variety of animals that make the potholes their home.

Muskrats, insects, small crayfish, leeches, snails, frogs, salamander are just a few of the very common inhabitants of prairie potholes. They are also a few very important prey animals to hawks, eagles, owls and dozens of prairie predators.

The Great Plains refuges protect some of the largest populations of quite a few different endangered species. Sandhill crane, swift fox, black-tailed prairie dog, black-footed ferret, Attwater's Prairie chicken, American Bison, burrowing owl, mountain plover and the grizzly bear are just a few endangered species being protected by wildlife refuges across the Great Plains. Every one of these species also directly depend upon either prairie grasslands or prairie potholes or both. The importance of these animals are very hard to see at a glance, but each animal is part of a very delicate cycle which mankind can easily corrupt. Without one animal two dozen other animals will suffer greatly and a dozen for each of those. For an example, take the black-tailed prairie dog. The black-tailed prairie clears vegetation, provides a source of food for dozens of animals and digs pesky holes. These very holes are a large part in why this animal is hated so



much. In fact due to both private and governmental eradication programs, the black-tailed prairie dog population has declined by 98% since European colonization.

Ironically, their burrows also serve as burrows for our nations most endangered species, the black-footed ferret, with only around 500 individuals remaining. Also with the prairie dog loss comes a loss in the predator population such as hawks, eagles, fox, coyotes, bobcats, badgers, and weasels. And each of these animals have a huge impact on at least three other species. Natural relationships are truly an intricate web. The interesting part of this is that the animals in the prairie effect animals in the mountains, swamps and even as far as the ocean. Without designated wildlife refuges, all of the animals that depend on prairie potholes and prairie grasslands, would eventually become extinct from the removal of habitat and other species.

The plants of the Great Plains are also vital to the ecosystem in less known ways. Plants not only provide a source of food and shelter to animals but they also provide protection for the soil under them. Grasses with their wide, dense roots provide the most effective protection. I say protection because that is exactly what it is. During the dry year of a drought many of the invasive plants will die leaving only the hardier native plants. In the areas that have been left undisturbed this is not a problem due to the high concentration of native plants. However in the areas that have been plowed or sprayed with herbicides, the concentration of native plants is considerably lower. When the invasive plants die there is dry, sandy soil on the surface of the ground, left unprotected. Now water and wind erosion will destroy the rest of the habitat creating dust storms and moving large quantities of earth making plant and animal life very difficult. This is very similar to the Dust Bowl in the 1930's. We must keep native habitats in place to help

prevent a similar problem from occurring again.

Without considering any other reason I think there is another equally important purpose in the protection of prairie potholes, prairie grasslands and waterfowl production areas. All of these habitats have a very special place in both my life and in my heart. My elementary school was located just across the street from the Rocky Mountain Arsenal National Wildlife Refuge. By going to this school I was very fortunate because I often went on field trips to this amazing place. Here my class would be guided around the trails and ponds by a refuge worker, who told us about everything. The Rocky Mountain Arsenal was the first place I saw a deer, a crane, an eagle, or about a dozen other animals I vividly remember. My field trips to this refuge were so exciting and are some of my most memorable childhood experiences. I remember even telling my dad about it when he got home for work at about 2 a.m. once. The arsenal was really the first place I learned the importance of conserving wildlife. I think seeing all of the wildlife in real life really made a huge impact on my life. Now I really love the outdoors and that is one of the reason I want to protect it. Some of my favorite things to do are hike, fish and hunt, all of which require nature to fully enjoy. The Great Plains region, like all regions are vital to all ecosystems and must be protected at all costs. Nature is just so beautiful, it scares me to see what happens to it without our protection. I want to ensure that my children and grandchildren can see nature as it is intended to be, as God made it.

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